

ABSTRACT OF THE DISCLOSURE

An integrated circuit package includes an angled one-piece substrate having a light source fixed to one area and a sensor die fixed to a second area, such that the light source is directed to illuminate the field of view of the sensor die when a surface of interest is imaged. The integrated circuit package is well suited for generating navigation information regarding movement relative to a surface. In one method of forming the integrated circuit package, the single-piece substrate is originally a generally flat lead frame to which the sensor die and light source are attached. After the components have been connected, the lead frame is bent to provide the desired light source-to-sensor angle. In an alternative method, the lead frame is pre-bent. For either method, optics may be connected to the integrated circuit package, thereby providing a module that includes the optics, the light source, the sensor and the packaging body.